

ABSTRACT OF THE DISCLOSURE

A paper web moistened in a paper machine and reeled on a machine reel is calendered in a multinip calender arranged apart from the paper machine , whose roll assembly is formed of a first set of rolls and a second set of rolls in the travel

5 direction of the paper web. At least one surface of the paper web is moistened with at least one pre-moisturizer, whereafter the paper web is guided to the first calender nip of the first set of rolls and one surface of the paper web is moistened with at least one intermediate moisturizer, whereafter the paper web is guided to the first calender nip of the second set of rolls, wherein a paper web having a roughness of 1.0 -

10 1.1 μm and/or gloss of 54 - 57 % or 56 - 60 % is produced as a result of calendering.